

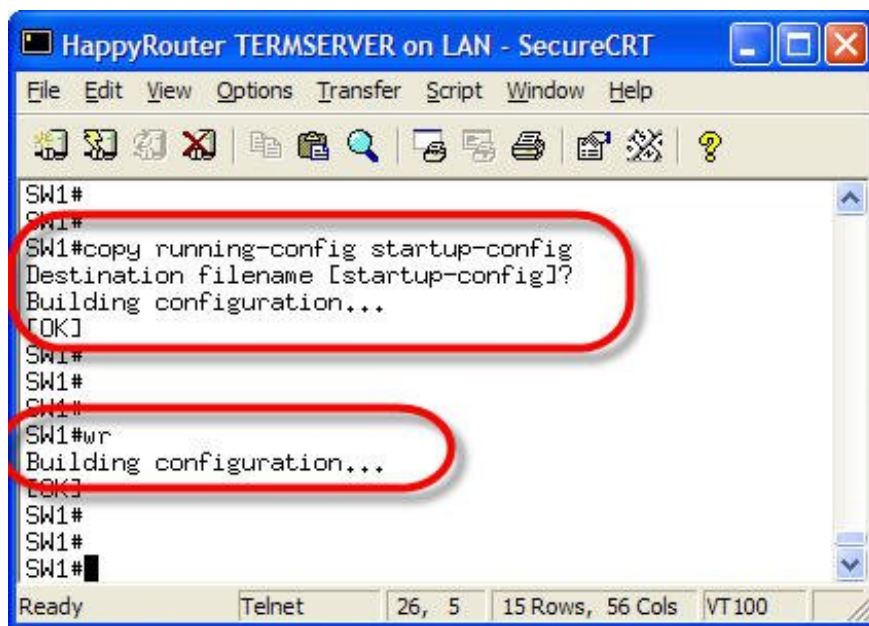
# The basics of Cisco Switch Management - Part 2

In Part 1, we went over some of the basics of Cisco Switch management. In this part 2, we will continue with the basics of Cisco Switch management.

**TipsMake.com** - In part 1, we went over some of the basics of Cisco Switch administration such as login, how to display switch configuration, how to display ports . In this part 2, we will continue with the basics of Cisco Switch management.

## How to save the switch configuration

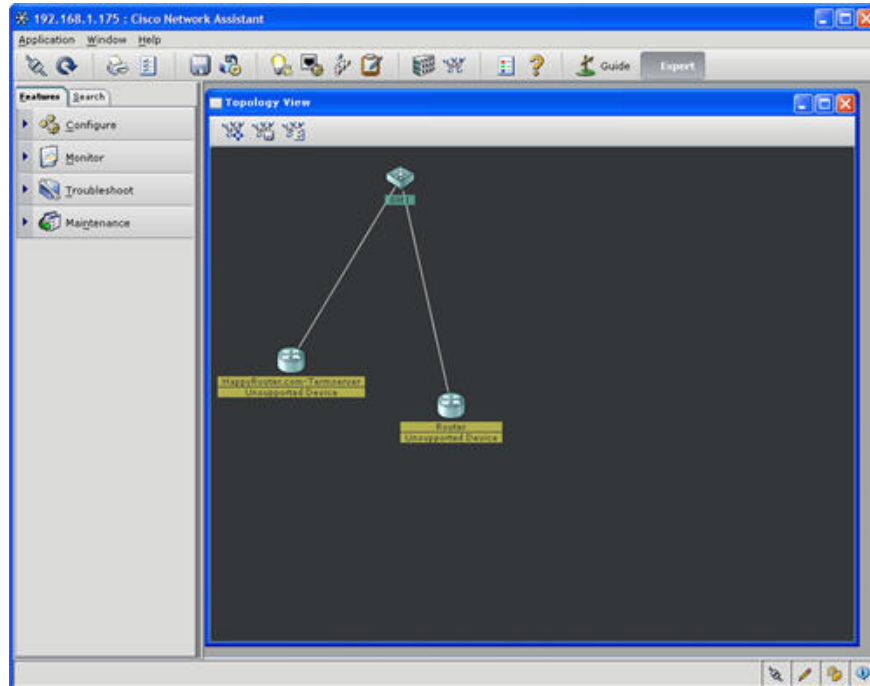
In part 1, we discussed how to enable / disable ports and how to change speed and duplex settings. These are necessary functions. However, when done, you need to save your configuration. Cisco switches cannot automatically save changes. If you have made some changes, the switch is faulty or the power is out, the changes will be lost. So you need to save these changes when you're done. There are 2 ways to do this:



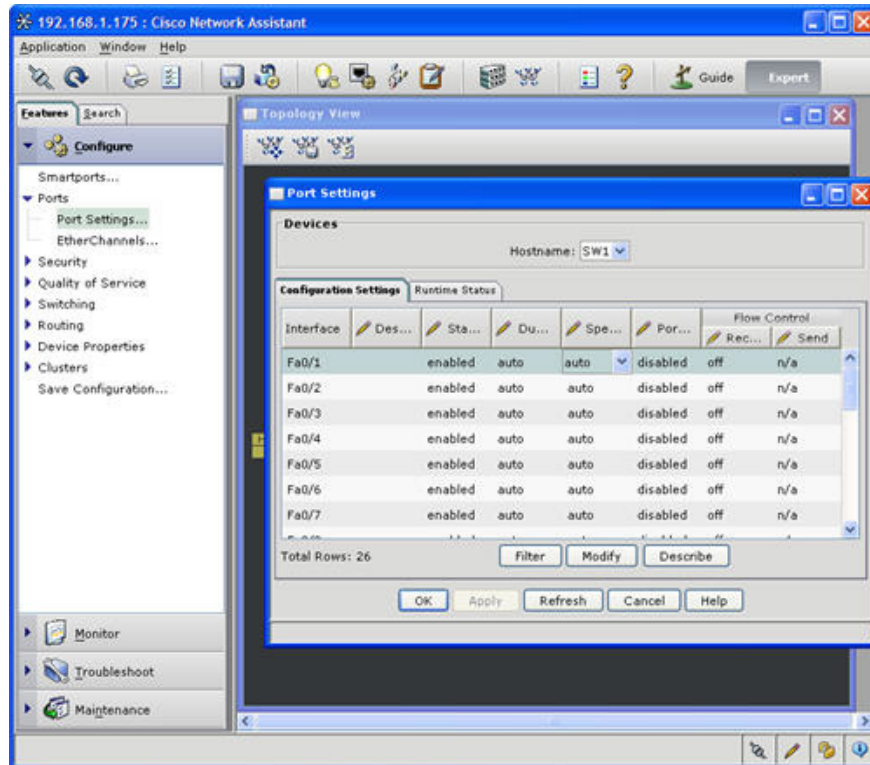
The first way is to save with textbook: **Switch # copy running-config startup-config** . However, another shorter and still usable command is: **Switch # wr** . Both of these commands can save the configuration used on the RAM in the NVRAM file : *startup-config* . When this switch is turned off, the configuration in use will be lost. The startup-config archive will be read when the switch restarts and reconstructs the old configuration. However, I recommend that you save your configuration on the TFTP server in case the NVRAM can be completely lost. Once the TFTP server is working, you can save your configuration easily by: **Switch # copy running-config tftp** .

## How to use Cisco Network Assistant

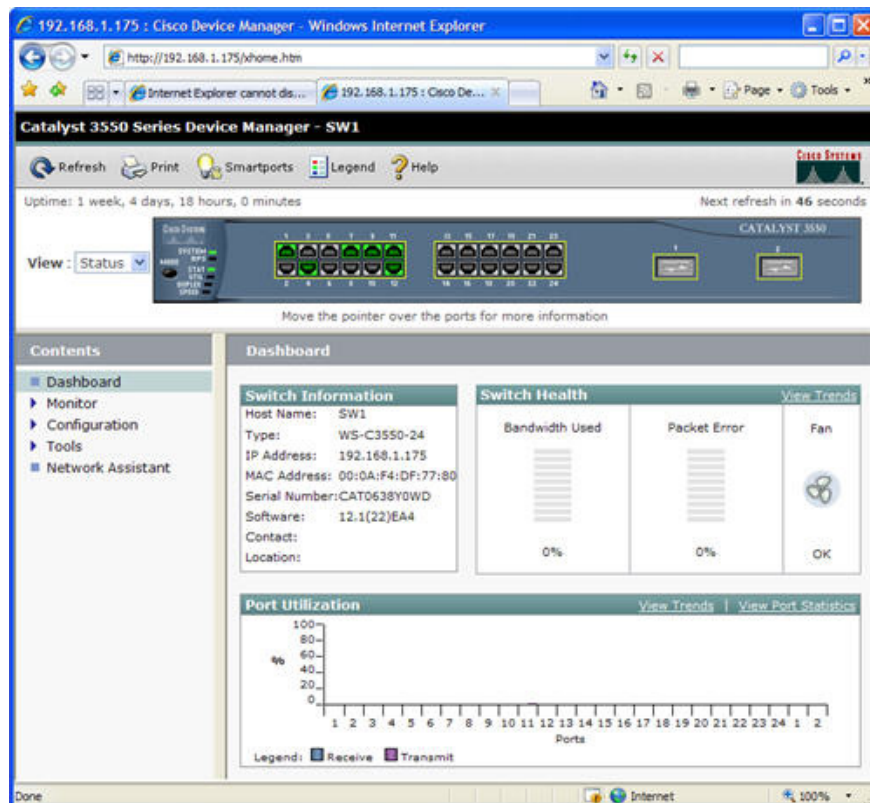
Cisco Network Assistant (CNA) is a free graphical tool available when you buy a new switch. It is used to manage Cisco network devices. This is a very useful tool that we cannot say all of its features in this article. However, I would like to introduce CNA to those who love to have a graphical interface for Cisco network devices. Normally, CNA gives you the following screen of Cisco device:



Once you click **Configure> Port Setting** , you will see:

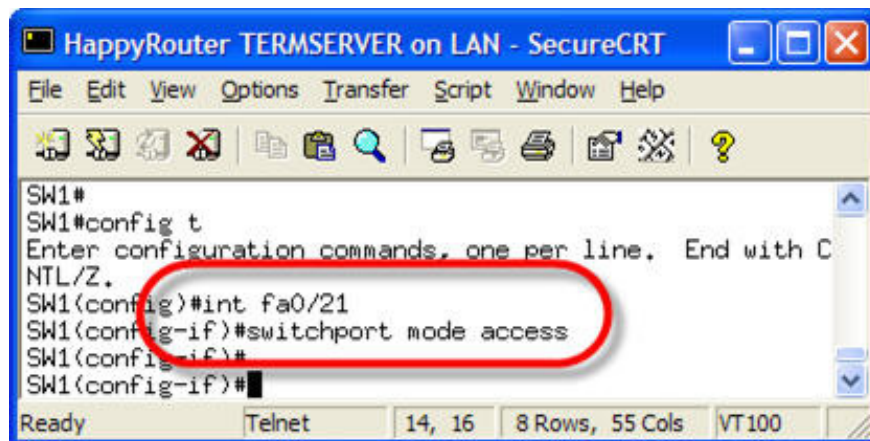


From here, you can configure the status, duplex, speed for your switch ports. In fact, you can configure most switch features using CNA. Keep in mind that for all Cisco switches, you can configure it using the web. However, web configuration is more limited than configured with CNA. You can configure it via the web via your own browser or can be done via CNA. The following is a sample screen of the Cisco 3550 using the web.



## Launch switch ports faster

Switch ports can connect to many different devices, such as between switches and switches, with routers, computer ports . Each of these devices has different configurations. Sometimes, when a device is connected to the switch port, the switch will immediately check the settings to connect to this device. This takes time and will delay devices (for example, a computer) when transporting information and receiving data from the network. Most times connecting your computer to the switch, you want to be able to use the network as quickly as possible. The command to turn on all quick switch ports is: **switchport mode access** . This will configure the port to make your computer more accessible to the network.



```
HappyRouter TERMSERVER on LAN - SecureCRT
File Edit View Options Transfer Script Window Help
SW1#
SW1#config t
Enter configuration commands, one per line. End with C
NTL/Z.
SW1(config)#int fa0/21
SW1(config-if)#switchport mode access
SW1(config-if)#
SW1(config-if)#
```

## Basic VLAN commands

Currently, many companies have used virtual LAN (VLAN). As an administrator, you should know:

1. How to know which device on the VLAN
2. How to change VLANs.

As you know, if a device is placed on the VLAN with an error, it cannot connect to the server. To display which device is in VLAN, use the **show vlan brief** command.

```
HappyRouter TERMSERVER on LAN - SecureCRT
File Edit View Options Transfer Script Window Help
SW1#show vlan brief
VLAN Name                Status    Ports
-----
1  default                 active    Fa0/1, Fa0/2, Fa0/3, Fa0/4
                               Fa0/5, Fa0/6, Fa0/13, Fa0/14
                               Fa0/15, Fa0/16, Fa0/17, Fa0/18
                               Fa0/19, Fa0/20, Fa0/21, Fa0/22
                               Fa0/23, Fa0/24, Gi0/1, Gi0/2
2  VLAN_Inside(2)         active
3  VLAN_Outside(3)       active
4  VLAN_A(4)              active
5  VLAN_B(5)              active
6  VLAN_6                  active
10  VLAN_10                 active
11  VLAN_BB1(11)           active
12  VLAN0012                active
13  VLAN0013                active
14  VLAN0014                active
19  VLAN0019                active
20  VLAN_20                 active
22  VLAN_22                 active
23  VLAN0023                active
30  PIX_OUTSIDE             active

VLAN Name                Status    Ports
-----
40  FOURTY                  active
45  VLAN_45                 active
53  VLAN-53                 active
66  BB6                     active
99  REMOTE-SPAN-VLAN       active
131 LOCAL_LAN_ONLY         active    Fa0/7, Fa0/8, Fa0/9, Fa0/10
                               Fa0/11, Fa0/12
132 VLAN-132              active
136 VLAN-136              active
1002 fddi-default            act/unsup
1003 token-ring-default    act/unsup
1004 fddinet-default        act/unsup
1005 trnet-default          act/unsup
SW1#
```

As you can see, this command displays the VLAN on the switch, which switch port has VLAN. Now, if you want to change interface port Fa0 / 21 from VLAN1 to VLAN131, you can do the following:

```
HappyRouter TERMSERVER on LAN - SecureCRT
File Edit View Options Transfer Script Window Help
SW1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
SW1(config)#int fa0/21
SW1(config-if)#switchport access vlan 131
SW1(config-if)#
SW1(config-if)#
```

Go to interface configuration mode to change VLANs, use **switchport access vlan XXX**. Using the command successfully, if you want to check the VLAN member again, simply reuse the **show vlan brief** command.

```
HappyRouter TERMSERVER on LAN - SecureCRT
File Edit View Options Transfer Script Window Help
SW1#show vlan brief
VLAN Name                Status    Ports
-----
1    default                 active    Fa0/1, Fa0/2, Fa0/3, Fa0/4
                                           Fa0/5, Fa0/6, Fa0/13, Fa0/14
                                           Fa0/15, Fa0/16, Fa0/17, Fa0/18
                                           Fa0/19, Fa0/20, Fa0/22, Fa0/23
                                           Fa0/24, Gi0/1, Gi0/2
2    VLAN_Inside(2)         active
3    VLAN_Outside(3)       active
4    VLAN_A(4)              active
5    VLAN_B(5)              active
6    VLAN_6                  active
10   VLAN_10                 active
11   VLAN_BB1(11)           active
12   VLAN0012                active
13   VLAN0013                active
14   VLAN0014                active
19   VLAN0019                active
20   VLAN_20                 active
22   VLAN_22                 active
23   VLAN0023                active
30   PIX_OUTSIDE            active

VLAN Name                Status    Ports
-----
40   FOURTY                  active
45   VLAN_45                 active
53   VLAN_53                 active
66   BB6                     active
99   REMOTE-SPAN-VLAN       active
131  LOCAL_LAN_ONLY          active    Fa0/7, Fa0/8, Fa0/9, Fa0/10
                                           Fa0/11, Fa0/12, Fa0/21
132  VLAN-132                active
136  VLAN-136                active
1002 fddi-default            act/unsup
1003 token-ring-default    act/unsup
1004 fddinet-default        act/unsup
1005 trnet-default         act/unsup
SW1#
```

You can see that Fa0 / 21 is now a member of VLAN131.

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